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EXAMINER				
LEE, TING ZHOU				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/038,312

Applicant(s)

HONG, JUN-IL

Examiner

TING LEE

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed on 24 February 2010 has been received and entered. Claims 1-5 as amended are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox, Jr. et al. U.S. Patent 6,462,760 (hereinafter "Cox") and Moon et al. U.S. Patent 6,211,858 (hereinafter "Moon").

Referring to claim 1, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator

corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); and invoking the associated task operation module corresponding to the registered different function upon receipt of a user input for designating the individual state indicator (when the user designates the icon by selecting the icon, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the icon is invoked/executed) (Cox: column 5, line 62-column 6, line 5).

Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter

icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and registered function of the state indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 2, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of

“Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the

associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and

registered function of the state indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 3, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of “Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative

operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether a cursor or an input focus is positioned over a representation area of the related individual state indicator, upon receipt of a user button input (the user can select a representation area of the related individual state indicator by selecting the icon with a cursor device) (Cox: column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the cursor or input focus is positioned over the representation area of the related individual state indicator (if the user has selected the icon via the cursor device, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5).

Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of

the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and registered function of the state indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 4, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the

appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus of finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is specifically a message indicator corresponding to a messaging operation with a registered

message reading function. Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches a message indicator corresponding to messaging operation and a registered message reading function (the meter icon can correspond to a messaging operation, i.e. arrival of a new mail with a registered message reading function, i.e. status of messages, new mail alert) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43).). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific message indicator corresponding to a function of a messaging operation, as taught by Moon. A message icon indicator is a specific type of icon indicator and use of an icon indicator to indicate message operations is well known to one of ordinary skill in the art. One would have been motivated to modify the icon indicator of Cox to include many specific types of indicators with corresponding functions, including the well known message indicator of Moon in order to obtain the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

Referring to claim 5, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of “Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a

touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is specifically an alarm indicator corresponding to an alarm operation with a registered alarm function. Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches an alarm indicator corresponding to an alarm operation with a registered alarm function (the meter icon can correspond to an alarm operation, i.e. out of range indicator, battery power falling to a critical

level, etc., with a function of indicating that an error condition that requires attention has occurred) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific alarm indicator corresponding to a function of an alarm operation, as taught by Moon. An alarm icon indicator is a specific type of icon indicator and use of an icon to indicate an alarm is well known to one of ordinary skill in the art. One would have been motivated to modify the icon indicator of Cox to include many types of indicators with corresponding functions, including the well known alarm indicator of Moon in order to obtain the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TING LEE whose telephone number is (571)272-4058. The examiner can normally be reached on Monday - Friday 7:30am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/TING LEE/
Primary Examiner, Art Unit 2173